GrocerPlus

Healthy Eating, Simplified

College can be an extremely stressful time for many people as they face new levels of academic pressure, a new environment and new challenges in learning to become a truly self-sufficient adult. A good part of that challenge is learning basic skills, including how to budget, grocery shop, and cook in a healthy manner. Unfortunately, it can be difficult to figure out what to buy at grocery stores and to cook without guidance and especially when busy with academics and extracurriculars. If only there was a service that could help people plan their (healthy) meals easily, convert the meal plans into grocery lists that they can use when they head to the store and do this all within personalized budget, time and dietary constraints...Introducing GrocerPlus, an online app that does exactly just that and at no cost to the user to download!

Total Addressable Problem:

GrocerPlus aims not only to tackle the challenge that general college students or even young professionals may face as discussed above, but is also poised to tackle a significant health challenge that is faced by almost a ⅓rd of college students in the US--food insecurity (Harris 2019). Food insecurity is when any pillar of food security is lacking; those pillars are having food sovereignty or the ability to choose the kind of food they eat (how processed it is, where it is produced, etc.), food safety (access to clean, nutritious and healthy food free from contamination), and security (having enough food to eat). Currently, millions of college students and in extension, working families face food insecurity on a daily basis. GrocerPlus can help these students and families eat healthier and within their monetary and time budgets through our unique recipe recommendation system that provides recipes within the user's dietary, monetary and time constraints. Furthermore, if there aren't grocery stores (or stores with cheap healthy options) readily available in the user's area, or if the user does not have time to head to the store themselves, they can easily have their groceries delivered to them through Instacart or AmazonFresh for a small flat fee.

Refocusing on the status of general college students and young professionals, the lack of affordable meal plans (many of them costing about 70% more per day than if students just cook at home) and the rising costs of eating out (restaurants mark up the cost of their food by an average of 300%) is also contributing to a situation where it is not more un-economical than ever before to not know how to cook (Mathewson 2019, Calfas 2017). For the millions of college students out there, having an app that can guide their

journey in budgeting, buying groceries and quickly cooking delicious and healthy meals could make all the difference.

References:

Calfas, Jennifer. “5 Cheap Things Restaurants Love to Overcharge You For.” *Money*, 12 Apr. 2017, <money.com/money/4734877/restaurant-prices-food-markups-guacamole-pizza/.>

Harris, Adam. “Millions of College Students Are Going Hungry.” *The Atlantic*, Atlantic Media Company, 9 Jan. 2019, <www.theatlantic.com/education/archive/2019/01/college-student-hunger/579877/.>

Mathewson, Tara Garcia. “A Tough-to-Swallow Reason College Keeps Costing More: the Price of Meal Plans.” *The Hechinger Report*, 12 Apr. 2019, <hechingerreport.org/tough-swallow-reason-college-keeps-costing-price-meal-plans/.>

Problem Statement: How may we incentivize healthy eating on a budget?

Our problem statement is a common one, which is the very reason we wanted to tackle it: No current solutions seem to provide justice to it. With a rise in meal-kit delivery services, grocery delivery services, and fitness tracking applications, cooking at home is being incentivized, however, at much higher costs. Today, cooking at home remains the single best way to maintain a healthy diet while following a budget. We wanted to find a way to use design change to simplify and thus incentivize home cooking for college students, without the added grocery delivery, food packaging, and recommendation costs.

Value Proposition

Healthy eating, simplified. GrocerPlus is the only app to offer users simplified and health-conscious meal planning and recipe recommendations tailored to their nutritional needs, as well as their monetary and time budgets. Furthermore, users can seamlessly transfer planned meals into a grocery list they can then use at their neighborhood grocery store (or have become a delivery checklist for Instacart and AmazonFresh to deliver right to their door). Best of all, GrocerPlus is free to download and to use! No more monthly subscription fees or expensive meal-kits, and most importantly, never skip a meal again.

Iterative Steps of GrocerPlus’ Development & Work Plan

- Phase 1: Ideation
    - Identify key assumptions for each idea
    - Research competitors and market space
    - Select top ideas to pursue Develop and finalize SurveyMonkey, including hosting
    - Conduct user research for top ideas
    - Re-analyze ideas based on survey responses
    - Sprint prototype maps
    - Deliberate upon which prototype model is to be pursued
    - Plan next steps for prototyping
- Phase 2: Prototyping
    - Deliberate on which beta app platform to use for prototype
    - Sketch out app experience on Figma
    - Begin encoding a functional app prototype on Figma User profile and goals page
    - Recommended diet generator Grocery list generator
    - Encode price comparisons from each grocery store
    - Link geotag filter to local grocery stores and link inventories
    - Test app amongst group members and refine
    - Scale testing to other users and members of the class
- Phase 3: Refining/Final Product
    - Engage user testing with prototypes and get feedback
    - Deliberate upon given feedback to refine the prototype
    - Edit and refine prototype based upon deliberations
    - Ask programmers to test and ask for refining points
    - Refine based upon programmers' insight

- Simple tweaks amongst group members Share final working prototype with Rachel
- Refine based upon Rachel's insight Present final model to the entire class

Our semesterly development plan with dates. Right side are points listed above.

Link to see this plan:
https://docs.google.com/spreadsheets/u/1/d/1vp9DmncHnqYa2zQ7n5CC0Q3PKCmi0hLHeulmeuaqO68/edit#gid=1447140099

Finding Summary from Discovery, Market & Background Research

As college students, we had a hunch that our fellow peers also lacked the knowledge to cook meals most suited to their unique schedules, macros, and budget. Hence, we used Survey Monkey[1] to interview roughly 100 UC Berkeley students, and discovered the following:

- 62% students believed they overspend on food (college students are budget conscious)
- On a scale of 0-100, students ranked their current nutrition habits as a 59 (high self-awareness about eating habits)
- 80% students cooked at least one meal at home (students definitely make an effort to cook)

Based on these results, we interviewed several students to understand the 'why' behind these numbers. The main theme, as hypothesized, was students' fear of cooking, as well as a general misconception about the complexity of nutritious and filling meals. However, by using simple online recipes as examples, we showed these students how easy certain meals were to cook that could fit their goals, which surprised them pleasantly. We also realized that while Berkeley students made a conscious effort to workout, their meal planning did not follow accordingly. In fact, even the "gym rats" ranked themselves low on the nutrition scale.

After researching the market, we realized that despite plenty of solutions addressing healthy eating, no app existed to connect the disparate components of the customer journey, and this is where we saw a design opportunity.

Market Opportunity

The market opportunity at hand adheres to the college population that seeks to eat healthily, conveniently, and cheaply - three words that are not often grouped together due to the non-ideal norms set by the food-tech industry.

⅓ of college students are affected by food insecurity. On average, restaurants charge a 300% markup on food, and college meal plans cost more than the average American's food spend. Grocery delivery services are on the rise due to their convenience, but they charge absurd subscription rates to leverage their services. So, what do students do now? Cook.

Home Dining has been on the rise for the past 5 years. More Americans are dining at home due to improved initiatives to better their health, save money, and to be more conscientious of what they are putting in their bodies. GrocerPlus targets all of these needs. The app is entirely free to use for consumers, and it generates hundreds of grocery list combinations to cater to the users' nutritional needs.

[1] https://www.surveymonkey.com/results/SM-N2Y9RDLDV/

Competitive Landscape

In the marketplace, there already exists services that recommend recipes (e.g. Yummly), assist with meal preparation (e.g. Hello Fresh) or even delivers meals (e.g. Freshly); however, there currently does not exist any company that provides a recipe discovery/meal planning service that is so personalized that it accounts for budget, preparation time constraints, dietary constraints, and on top of that helps produce a grocery list that the user can then use when shopping or can transfer to a grocery delivery service, all at no direct cost to the user! As seen in the chart below, our competitors all specialize in different niche segments; however, GrocerPlus is the only service that is able to combine these services while prioritizing the consumers' wallet. This seamless advantage over all others is what allows us to thrive in this great market opportunity.

		Recipe Discovery, Shopping lists		*Meal-Kit delivery*	*Meal Delivery*
		Do it yourself		*Do it yourself (cooking only)*	*Ready to eat*
	GrocerPlus	Yummly	mealime	SUN BASKET / Hello FRESH	FRESHLY
Price	FREE!	$	$	$$	$$
Macros	✓	✗	✗	✗	✗
Time-Friendly Recipes	✓	✗	✗	✗	✓
Budget-Conscious	✓	✓	✓	✗	✗

High-Level Business Model:

As mentioned earlier, we wanted to step in as a bridge between the disparate solutions that currently exist. This vision also informs our business model, as we do not compete with existing players, rather, support them. GrocerPlus is completely free for the users. There are two ways our platform makes money. The first is through partnerships with Amazon Fresh and Instacart, and the second is through advertising. After selecting a tailored meal plan for the user, our app generates a neatly organized grocery list, which can be seamlessly transferred to Amazon Fresh or Instacart. Hence, whenever user signs up for Amazon Fresh or Instacart within our app, we would get a 99c monthly cut from the user's subscription payment (since we provide a customer acquisition channel). Secondly, once we have enough users, we plan to monetize rich data on customer eating and grocery shopping habits by selling the data to third party research firms, and advertisers.

Market Validation

We tested our prototype application (the final version as shown above) with several college students in the Recreational Sports Facility and Free Speech Movement, as well with personal friends and connections. Through these demo tests, we were able to get validation for solving the “knowledge gap” that currently occurs because of students often do not realize what foods sit well within their unique budget, macros and busy schedules. Users were left surprised by what meal combinations were out there (and how simple they were to prepare!). However, we also received constructive feedback from our users, such as having the option to replace home cooked meals with healthy budget restaurant meals (along with nutritional data on them) and improving meal recommendations by adding (as well as excluding) certain user inputs.

High-Level Business Strategy

One of the most important aspects of our business strategy is our business model. It is a proven fact that acquiring someone’s phone real estate is challenging, however, this challenge is further compounded when applications are paid. GrocerPlus’s business model is setup in a way that it is free, as we only monetize our grocery delivery partners (along with user data). We believe that this decision will allow us to get higher conversions (people who view our ads on social media platforms and download it) while reducing churn (people deleting our app after downloading it). We are also betting big on macro-economic tailwinds like rise in home-cooking, rise in average restaurant markups and college meal plan costs, and finally, a tremendous increase in grocery delivery services like Amazon Fresh and Instacart.

Design Methodology and Philosophy

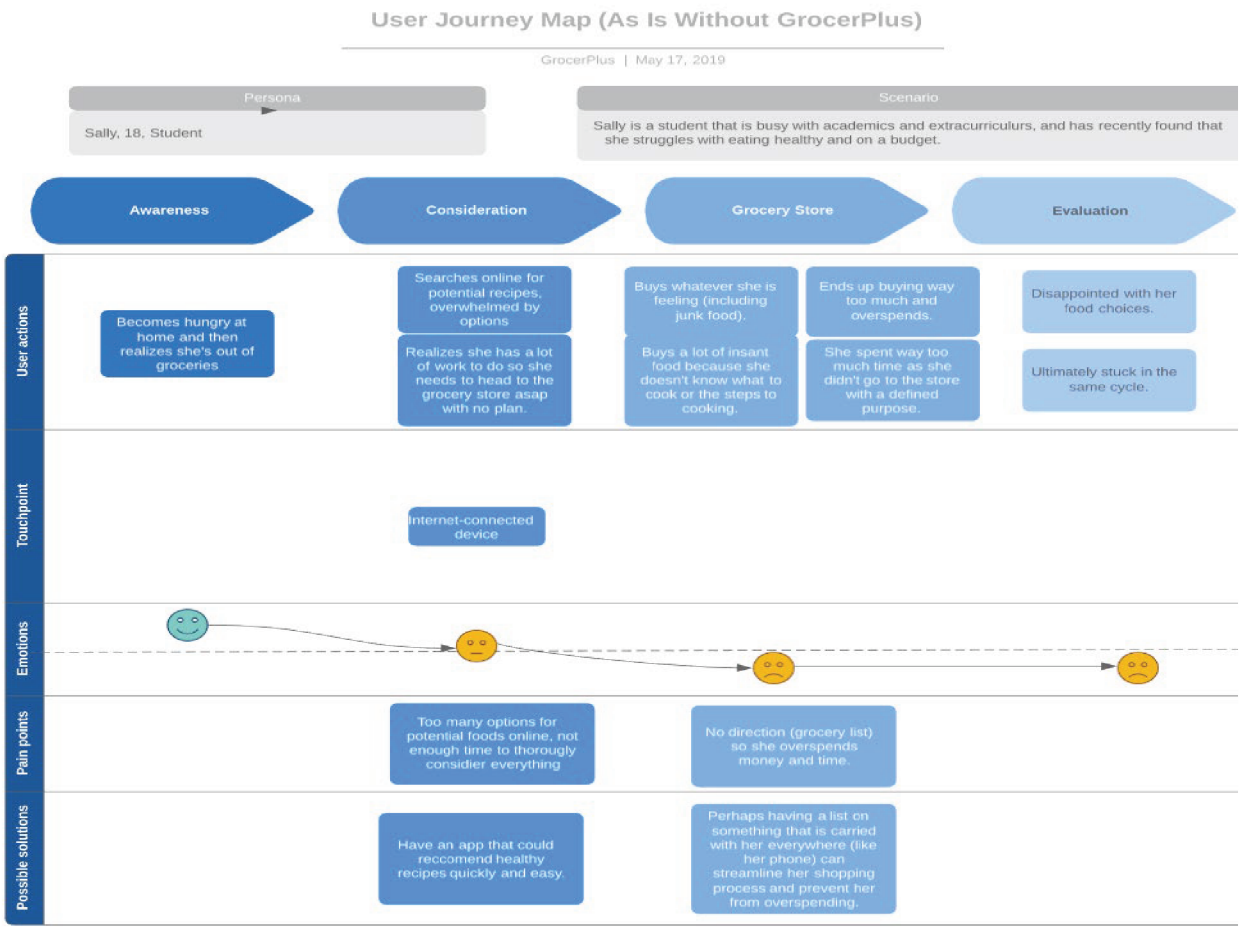
In designing our website initially and then our mobile app, we held a few key principles: 1) to keep the user interface and profile set-up simple and clear 2) to provide easy access to all utilities of the app and 3) to efficiently provide all the information regarding nutrition and budget. We were able to accomplish this through creating intuitive app pages, employing minimalistic backgrounds and icons and keeping our main features accessible from a side menu. In terms of app features, we knew what we had to include from early on. As GrocerPlus aims to provide tailored meal planning and grocery lists, we knew we had to include a page in which users can enter their macro data (height, sex, body weight, diet goal, etc) as well as their budget constraints, taste preferences and time constraints, a page for recipe recommendations and selection based off user data and preferences, and finally a page listing the groceries they need to prepare their selected meals.

Form and Function of (Final) Design

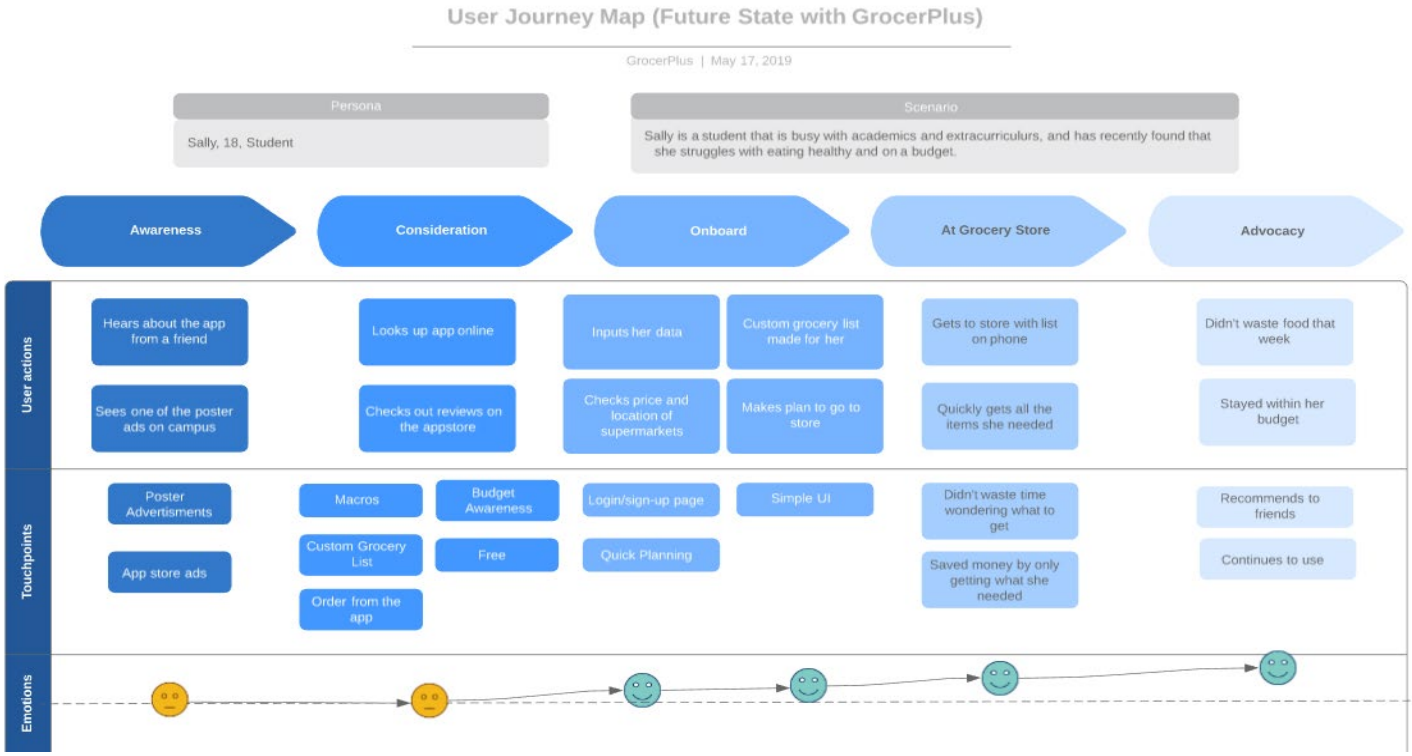
Users can enter their personal macro, taste preferences, budget and time constraint information on the profile page, and proceed to the “weekly diary” page to start planning their daily meals. Delving into the specifics of the weekly diary page, we wanted users to be able to select what types of recipe recommendations would occur more often through thumbs ups and downs, set a particular meal as a recurring meal with the add button, and to be able to regenerate meal recommendations with a circular arrow button. Through calorie information, serving sizes and prep time, users would be able to quickly assess whether or not they want a certain meal for a given day. If they would like additional information to make their decision, they can click on the name of the dish and be linked to the recipes page. On the recipe page, users can set their serving size (to eat personally or for more than one person), see the recipe directions and read a short description about the dish. As stated earlier in our key principles, we think it is extremely important that users be able to quickly access all the information regarding a dish (its nutrition, cost, etc.) and having that intuitive link through the name of the dish helps accomplish that goal. Once recipes are selected, food items would appear in the grocery/pantry list page. On the grocery/pantry page, users can easily select ingredients they already have at home and move it to the “pantry” and thus be left with a list of just ingredients they need. If the user would like to have the ingredients delivered, we decided to put in buttons on top so they can easily order with Instacart or AmazonFresh.

User Journey Maps

As Is (Without GrocerPlus)



Future State (With GrocerPlus)



Assumption & Experiment Spreadsheet

ASSUMPTIONS	TOTAL							
			Zephyr	Saadhana	Owen	Zachary	Susan	Sam
LOCATION		# Of Y's	Berkeley	Berkeley	Berkeley	Berkeley	Berkeley	Berkeley
GENDER			M	F	M	M	F	F
AGE			23	19	19	18	20	21
About the Customer Problem - Grocery Lists								
I end up buying more than I had intended to at the store if I don't prepare a list beforehand.	50.00%	3	Y	Y	N	Y	N	N
Shopping for groceries can be time-consuming and stressful.	33.33%	2	N	N	N	N	Y	Y
I am not as efficient at shopping when I don't prepare a list.	83.33%	5	Y	N	Y	Y	Y	Y
Making a grocery list isn't easy.	16.67%	1	N	N	N	Y	N	N
I sometimes don't buy enough groceries.	66.67%	4	Y	Y	Y	N	Y	N
I don't cook as frequently as I would like to.	83.33%	5	N	Y	Y	Y	Y	Y
I sometimes forget my grocery list if I do make one.	33.33%	2	Y	N	N	N	Y	N
It is hard to stay on budget when I don't have the prices available for the items on my list.	0.00%	0	N	N/A	N	N	N/A	N
About the Solution - Grocery Lists								
I need a list that will include all the nutrition I would need.	0.00%	0	N	N	N	N	N	N
A solution to autogenerate a list sounds appealing.	83.33%	5	Y	Y	Y	Y	Y	N
It is important that I do not spend a lot of time making a list.	50.00%	3	Y	N	N	Y	Y	N
I want foods that are on my list to be foods that I know I will end up cooking and eating.	100.00%	6	Y	Y	Y	Y	Y	Y
A list that keeps me on budget is necessary.	83.33%	5	Y	N/A	Y	Y	Y	Y
Having a list on my phone would be most convenient for me.	100.00%	6	Y	Y	Y	Y	Y	Y

About the Customer Problem - Healthy Eating			Zephyr	Saadhana	Owen	Zachary	Susan	Sam
			Berkeley	Berkeley	Berkeley	Berkeley	Berkeley	Berkeley
Eating healthy can be too expensive.	66.67%	4	Y	N	N	Y	Y	Y
Trying to eat healthy takes too much time.	66.67%	4	Y	N	Y	Y	Y	N
There aren't many food options when trying to eat healthy.	16.67%	1	N	N	N	N	Y	N
It's difficult to know where to begin in trying to eat healthy.	50.00%	3	Y	N	N	N	Y	Y
I am worried that I may not get all the nutrition and calories I need in changing my diet.	66.67%	4	N	Y	Y	Y	Y	N
I tend to eat whatever is close by or convenient.	66.67%	4	N	N	Y	Y	Y	Y
Existing meal-kit services to help me eat/cook healthy are too expensive.	50.00%	3	Y	Y	N/A	N/A	N/A	Y
About the Solution - Healthy Eating								
It is important that I do not need to worry about balancing my macros in choosing my foods.	83.33%	5	N	Y	Y	Y	Y	Y
I must have food options that are appealing to my tastes.	100.00%	6	Y	Y	Y	Y	Y	Y
The healthy foods I eat need to be within my budget.	100.00%	6	Y	Y	Y	Y	Y	Y
Planning my meals should not take too much time.	100.00%	6	Y	Y	Y	Y	Y	Y